form a method of measuring the magnetic offset of the geomagnetic sensor, wherein the method comprises:

a data measurement step of measuring an output of the geomagnetic sensor, and successively providing a plurality of the measurement data of the geomagnetic field including preceding measurement data and succeeding measurement data;

an inclination measurement step of measuring an output of the inclination sensor and successively providing a plurality of angle data which represent the inclination angles of the portable information terminal apparatus and which include preceding angle data measured concurrently with the preceding measurement data and succeeding angle data measured concurrently with the succeeding measurement data;

a data storing step of storing the succeeding measurement data in the storage when a difference between a inclination angle of the portable information terminal apparatus denoted by the succeeding angle data and another inclination angle of the portable information terminal apparatus denoted by the preceding angle data is greater than a predetermined difference, thereby accumulating the measurement data in the storage by repeating a routine of the data measurement step, the inclination measurement step and the data storing step; and

an offset estimation step of reading out a plurality of the accumulated measurement data from the storage and estimating the offset value of the magnetic offset from the plurality of the accumulated measurement data read out from the storage.

37. A machine readable medium for use in a portable information terminal apparatus having a CPU, a storage and a geomagnetic sensor which has a magnetic sensitivity to a geomagnetic field and which is affected by magnetization to cause an magnetic offset, the medium containing program instructions executable by the CPU for causing the portable information terminal apparatus to perform a method of measuring the magnetic offset of the geomagnetic sensor, wherein the method comprises:

a data measurement step of measuring an output of the geomagnetic sensor and successively providing measurement data of the geomagnetic field from the output of the geomagnetic sensor;

a data storing step of storing the measurement data into the storage; and

an offset estimation step of reading out the measurement data from the storage when a number of the measurement data stored in the storage reaches a predetermined number, and estimating an offset value of the magnetic offset based on the predetermined number of the measurement data read out from the storage.

38. A machine readable medium for use in a portable electronic apparatus having a CPU, a geomagnetic sensor and a foldable body which is handled by opening operation and closing operation and which generates a leakage magnetic field, the machine readable medium containing an azimuth measurement program executable by the CPU for causing the portable electronic apparatus to perform an azimuth measurement process comprising the steps of:

operating the geomagnetic sensor for measuring a geomagnetic field with a certain offset and outputting measurement data of the geomagnetic field such that the measurement data may contain an error due to the offset;

detecting an azimuth direction based on the measurement data from the geomagnetic sensor;

acquiring a plurality of the measurement data from the geomagnetic sensor, and estimating a value of the offset on the basis of the acquired measurement data for use in correcting the error contained in the measurement data during the detection of the azimuth direction;

detecting the opening operation of the foldable body;

computing a value of the leakage magnetic field generated from the foldable body when the opening operation of the foldable body is detected; and

subtracting the computed value of the leakage magnetic field from the estimated value of the offset, thereby removing an influence of the leakage magnetic field from the estimated value of the offset.

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